

MEng Innovation by Design

2019/2020 Ideate-Prototype-Realize



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IMPROVING KICKING TECHNIQUES IN FOOTBALL

PROBLEM

GOAL2034 is the target set by the Football Association of Singapore (FAS) to achieve the goal of reaching the World Cup Finals for the first time in the nation's football history. How do we help the football team to realize this dream by utilizing scientific research to improve player performance?

GOAL & AIM

Help the Singapore football team achieve GOAL2034 by enhancing player performance by designing a training tool/support to improve kicking techniques.

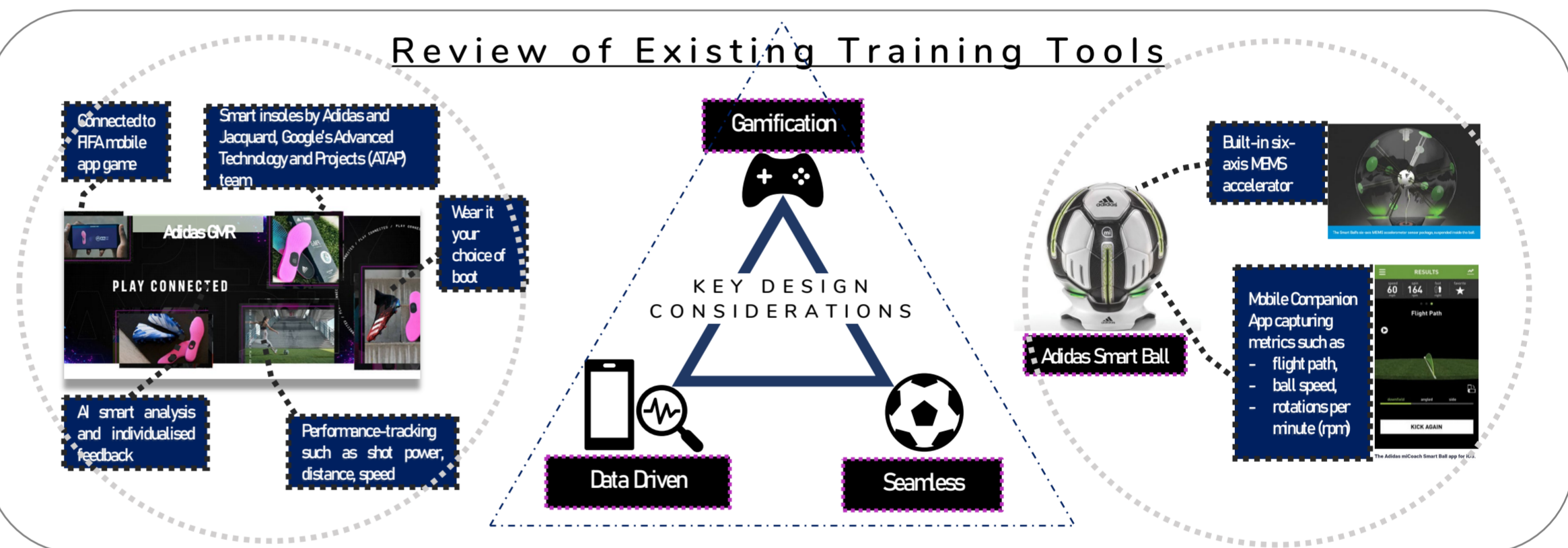
FACTORS

- Critical components of a Kick → Accuracy + Power
- Operational Definition of "Successful kicks" → Kicks resulting in the intended trajectory and ball speed

HOW MIGHT WE (HMW)

- HMW increase rate of a successful kicks by increasing accuracy in ball trajectory
- HMW increase rate of successful kicks by increasing kicking power to increase ball speed

IDEATE PROLIFERATION OF IDEAS



PROTOTYPE DEVELOPMENT OF IDEAS



REALIZE PRODUCTION OF FINAL PROTOTYPE

